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DHEC Health Advisory

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Enhanced Influenza Surveillance for Avian Influenza

Purpose of Enhanced Influenza Surveillance by Healthcare Providers

The CDC and SC DHEC continue to encourage 'enhanced' surveillance for patients with influenza like illnesses (ILI) who are at increased risk for avian influenza A. This Health Advisory contains guidance and references for the medical community to assure rapid diagnosis of avian influenza (H5N1) and rapid implementation of available control measures. The medical community needs to maintain vigilance in the clinical setting and consider the following actions:

- 1) Consistently obtain international travel history and other exposure risk information for persons with specified respiratory symptoms
- 2) Obtain rapid diagnostic laboratory tests for patients who are at risk for avian influenza
- 3) Rapidly implement infection control measures
- 4) Report the suspected case to the local health department for consultation and assistance in obtaining the appropriate testing.

Current Status of Human Avian Influenza A Cases Reported to the WHO

According to the WHO (World Health Organization), as of June 28 2005, the cumulative number of confirmed human cases of avian influenza A (H5N1) are: 90 in Viet Nam, 17 in Thailand, four in Cambodia and one in Indonesia. There have been a total of 57 confirmed deaths.

It is likely that influenza A (H5N1) infection among birds has become endemic to the Asian region and that human infections will continue to occur. So far, no sustained human-to-human transmission of the influenza A (H5N1) virus has been identified, and no influenza A (H5N1) viruses containing both human and avian influenza virus genes, indicative of gene reassortment, have been detected.

Background on Avian Influenza A

What is Avian Influenza A?

Avian influenza A (H5N1) is a viral infection that usually affects wild birds but can infect and cause serious disease among poultry (domestic farm birds, such as chickens, geese, ducks, etc). While humans get avian influenza virus infections directly from poultry, it is unusual. A number of human infections and outbreaks caused by certain avian influenza A viruses have been documented since 1997.

Mode of Transmission of Avian Influenza A

Most cases of avian influenza A (H5N1) virus infection in humans are thought to have occurred from direct contact with infected poultry (domestic farm birds) in the affected countries in Asia. Therefore, care should be taken to avoid contact, when feasible, with live, well-appearing, sick, or dead poultry and any surfaces that may have been contaminated by poultry, or their feces or secretions. Transmission of H5N1 viruses to two persons through consumption of uncooked duck blood may also have occurred in Vietnam in 2005. Therefore, consumption of uncooked poultry or poultry products, including blood, should be avoided.

However, a few cases of person-to-person spread of H5N1 viruses are thought to have occurred. For example, one instance of probable person-to-person transmission associated with close contact between an ill child and her mother is thought to have occurred in Thailand in September 2004. More recently, possible person-to-person transmission of H5N1 viruses is being investigated in several clusters of human cases in Vietnam. So far, spread of H5N1 virus from one ill person to another has been very rare, and transmission has not continued any further beyond one person.

Status of Control Methods for Influenza A H5N1

H5N1 infections in humans can cause serious disease and death. An inactivated vaccine to protect humans against influenza A (H5N1) is undergoing human clinical trials in the United States, but no human H5N1 vaccine is currently available. The H5N1 viruses currently infecting birds and some humans in Asia are resistant to amantadine and rimantadine, two antiviral medications commonly used for influenza. The H5N1 viruses are susceptible in a test tube to the antiviral medications, oseltamavir and zanamavir, although the effectiveness of these drugs when used for treatment of H5N1 virus infection is unknown.

Guidance for Health Care Professionals

Identification of possible imported cases of avian influenza A (H5N1) in the U.S. clinical setting depends on health-care providers consistently obtaining information on recent international travel, exposure to poultry (domestic farm birds) and other potential exposures from persons who traveled to high risk areas and have certain respiratory symptoms.

Currently outbreaks of avian influenza A (H5N1) among poultry (domestic farm birds) are ongoing in several countries in Asia, including Thailand, Vietnam, China, Cambodia and Indonesia. Health-care providers should be alert for respiratory illness among travelers to these areas of Asia with documented cases of avian influenza in poultry and/or humans.

Testing Guidance and Respiratory Specimen Submission For Suspected Avian Influenza A Patients

Respiratory specimens for avian influenza A (H5N1) will be submitted to the DHEC and CDC Laboratories after consultation on a case by case basis with state and local health departments for hospitalized or ambulatory patients with:

- documented temperature of $>38^{\circ}\text{C}$ ($>100.4^{\circ}\text{F}$), AND
- one or more of the following: cough, sore throat, shortness of breath, AND
- history of contact with poultry (e.g., visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

Testing for avian influenza A (H5N1) is indicated for hospitalized patients with

- radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established, AND
- history of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry (domestic farm birds) and/or humans.

Specimen submissions for testing of patients at risk for avian influenza A (H5N1) MUST be made in coordination with your local health department.

Persons who develop a febrile respiratory illness should have a respiratory sample (e.g., nasopharyngeal swab or aspirate) collected.

The sensitivity of commercially available rapid diagnostic tests for influenza may not always be optimal. Even if they test negative by influenza rapid diagnostic testing, if the person meets the above clinical criteria and exposure history, specimen submission for testing should be coordinated with the local health department.

Optimally, an acute- (within 1 week of illness onset) and convalescent-phase (after 3 weeks of illness onset) serum sample should also be collected and stored locally in case testing for antibody to the avian influenza virus should be needed.

Infection Control Precautions for Influenza A (H5N1)

Infection control precautions for H5N1 remain unchanged from the CDC interim recommendations issued on February 3, 2004. All patients who present to a health-care setting with fever and respiratory symptoms should be managed according to recommendations for Respiratory Hygiene and Cough Etiquette and questioned regarding their recent travel history. Isolation precautions identical to those recommended for SARS should be implemented for all hospitalized patients diagnosed with or under evaluation for influenza A (H5N1) as follows:

Standard Precautions

- Practice hand hygiene before and after patient contact.

Contact Precautions

- Use gowns and gloves for all patient contact

Eye Protection

- Wear when within 3 feet of the patient

Airborne Precautions

- Place the patient in an airborne isolation room (i.e., monitored negative pressure in relation to the surrounding areas with 6 to 12 air changes per hour).
- Use a fit-tested respirator, at least as protective as a NIOSH-approved N-95 filtering face piece respirator, when entering the room.

Timeline of Infection Control Precautions

These precautions should be continued for 14 days after onset of symptoms or until an alternative diagnosis is established or until diagnostic test results indicate that the patient is not infected with influenza A virus (see Laboratory Testing Procedures below). Patients managed as outpatients or hospitalized patients discharged before 14 days should be isolated in the home setting on the basis of principles outlined for the home isolation of SARS patients (see www.cdc.gov/ncidod/sars/guidance/i/pdf/i.pdf).

Additional Resources

WHO (World Health Organization) Avian Influenza site:

- www.who.int/csr/disease/avian_influenza/en/

CDC avian influenza website:

- www.cdc.gov/flu/avian/

CDC traveler's health site:

- www.cdc.gov/travel/

CDC Respiratory Hygiene/Cough Etiquette in Healthcare Settings:

- www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm

CDC Guideline for Isolation Precautions in Hospitals:

- www.cdc.gov/ncidod/hip/ISOLAT/Isolat.htm

DHEC Contact Information for Reportable Diseases and Reporting Requirements

Reporting of outbreaks/clusters of cases is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2004 List of Reportable Conditions available at: http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Public Health Offices

Mail or call reports to the Epidemiology/Disease Report Office in the appropriate county listed below.

Region 1

(Anderson, Oconee)

220 McGee Road
Anderson, SC 29625
Phone: (864) 231-1966
Fax: (864) 260-5623
Nights / Weekends: 1-(866)-298-4442

(Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda)

PO Box 3227
1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Region 2

(Cherokee, Spartanburg, Union)

PO Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227 ext. 210
Fax: (864) 596-3443
Nights / Weekends: (864) 809-3825

(Greenville, Pickens)

PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: (864) 460-5355 or
1-800-993-1186

Region 3

(Chester, Lancaster, York)

PO Box 817
1833 Pageland Highway
Lancaster, SC 29721
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: 1-(866)-867-3886 or
1-(888)-739-0748

(Fairfield, Lexington, Newberry, Richland)

2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: (803) 304-4252

Region 4

(Clarendon, Kershaw, Lee, Sumter)

PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 773-6366
Nights / Weekends: 1-(877)-831-4647

(Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion)

145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 660-8145

Region 5

(Aiken, Allendale, Barnwell)

1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (803) 827-8668 or
1-800-614-1519

Region 5 (cont.)

(Bamberg, Calhoun, Orangeburg)

PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 536-9118
Nights / Weekends: (803) 954-8513

Region 6

(Georgetown, Horry, Williamsburg)

2830 Oak Street
Conway, SC 29526-4560
Phone: (843) 365-3126
Fax: (843) 365-3153
Nights / Weekends: (843) 381-6710

Region 7

(Berkeley, Charleston, Dorchester)

4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: 843-746-3806
Fax: (843) 746-3851
Nights / Weekends: (843) 219-8470

Region 8

(Beaufort, Colleton, Hampton, Jasper)

1235 Lady's Island Drive
Port Royal, SC 29935
Phone: (843) 525-7603
Fax: (843) 525-7621
Nights / Weekends: 1-800-614-4698

Bureau of Disease Control

Acute Disease Epidemiology Division
1751 Calhoun Street
Box 101106
Columbia, SC
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.